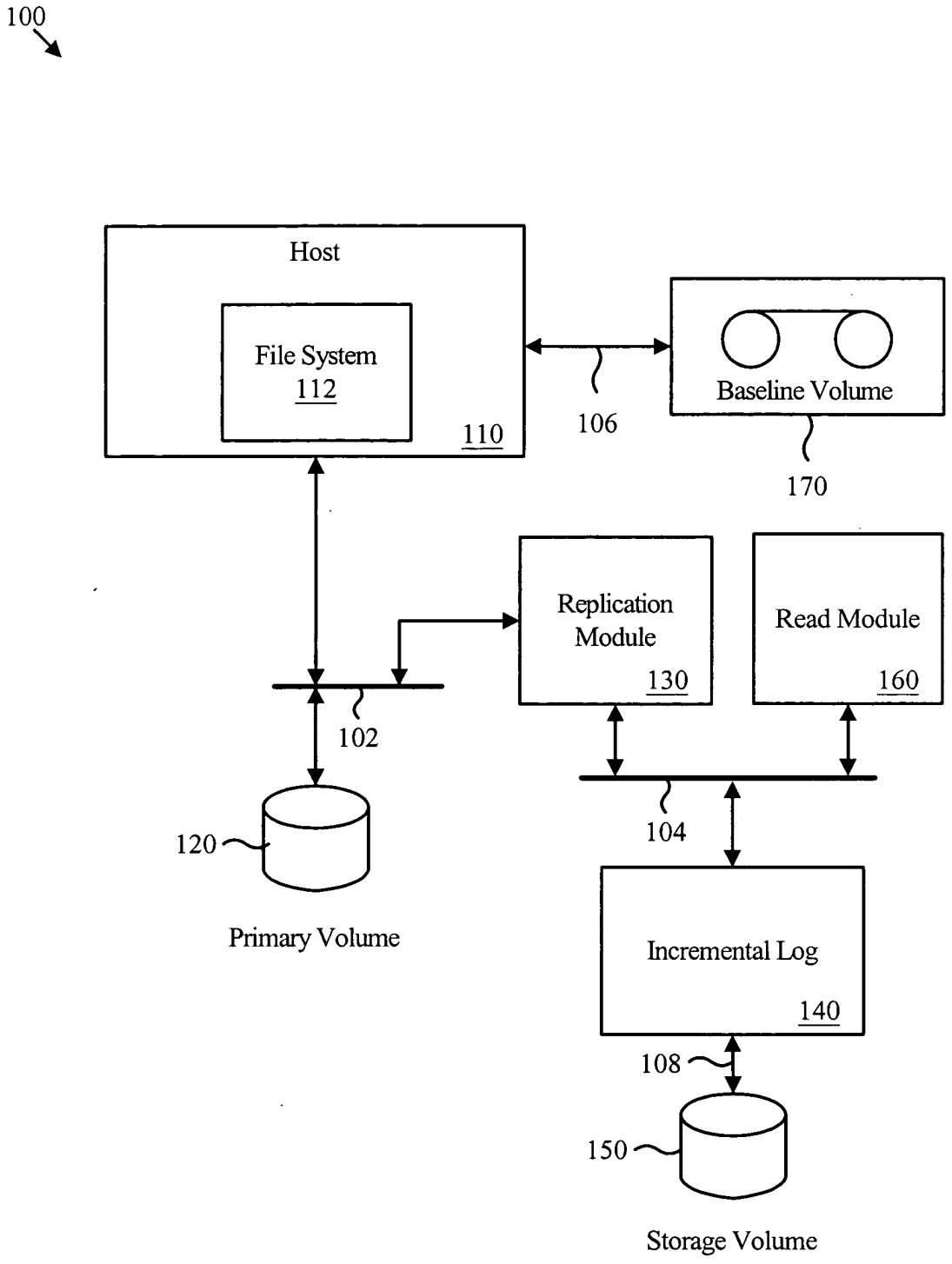


(Related Art)

Fig. 1

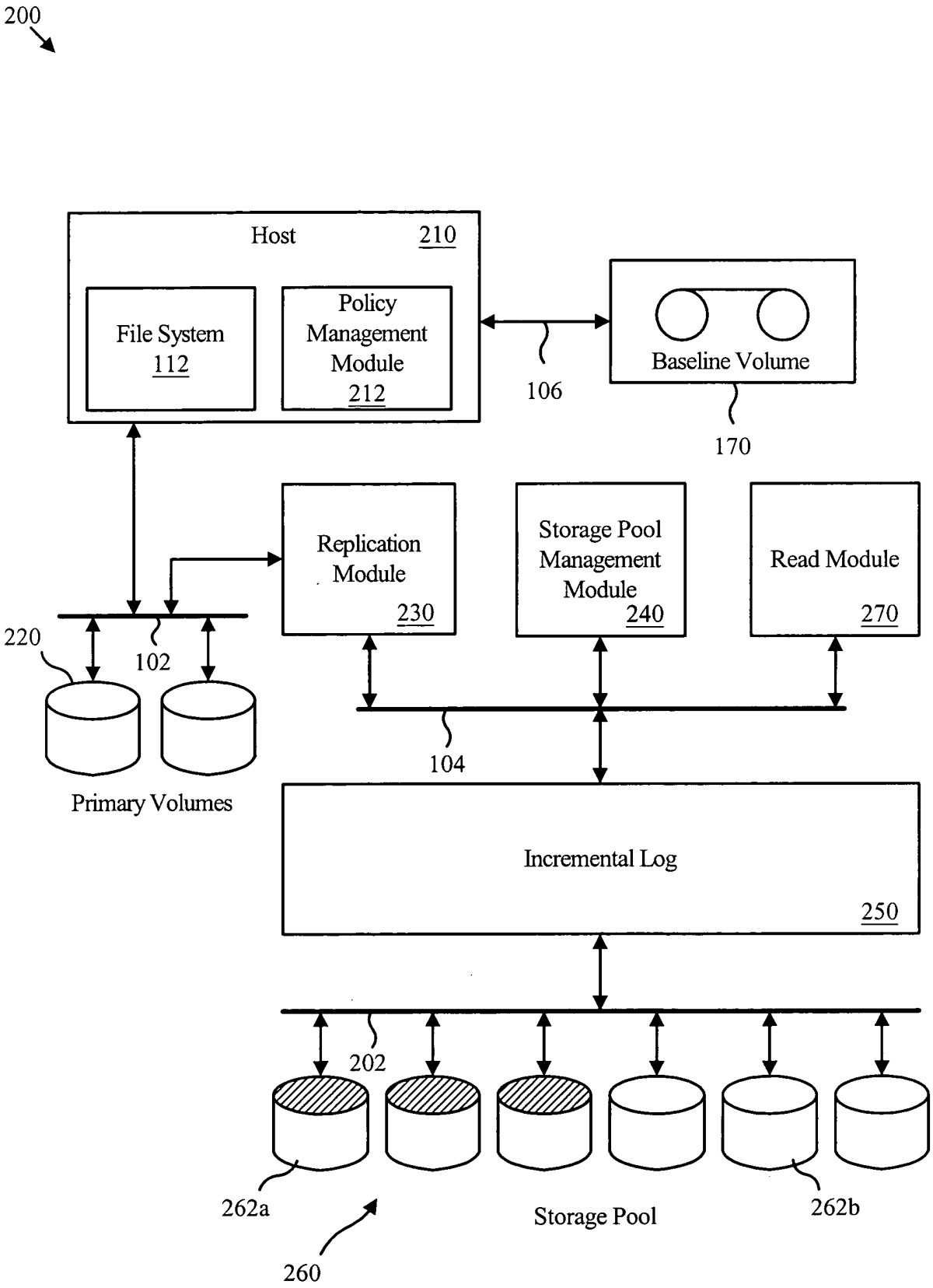
200
Host
210
File System
112
Policy
Management
Module
212
106
Baseline Volume
170
Replication
Module
230
Storage Pool
Management
Module
240
Read Module
270
220
102
104
Primary Volumes
Incremental Log
250
202
262a
260
Storage Pool
262b

Fig. 2

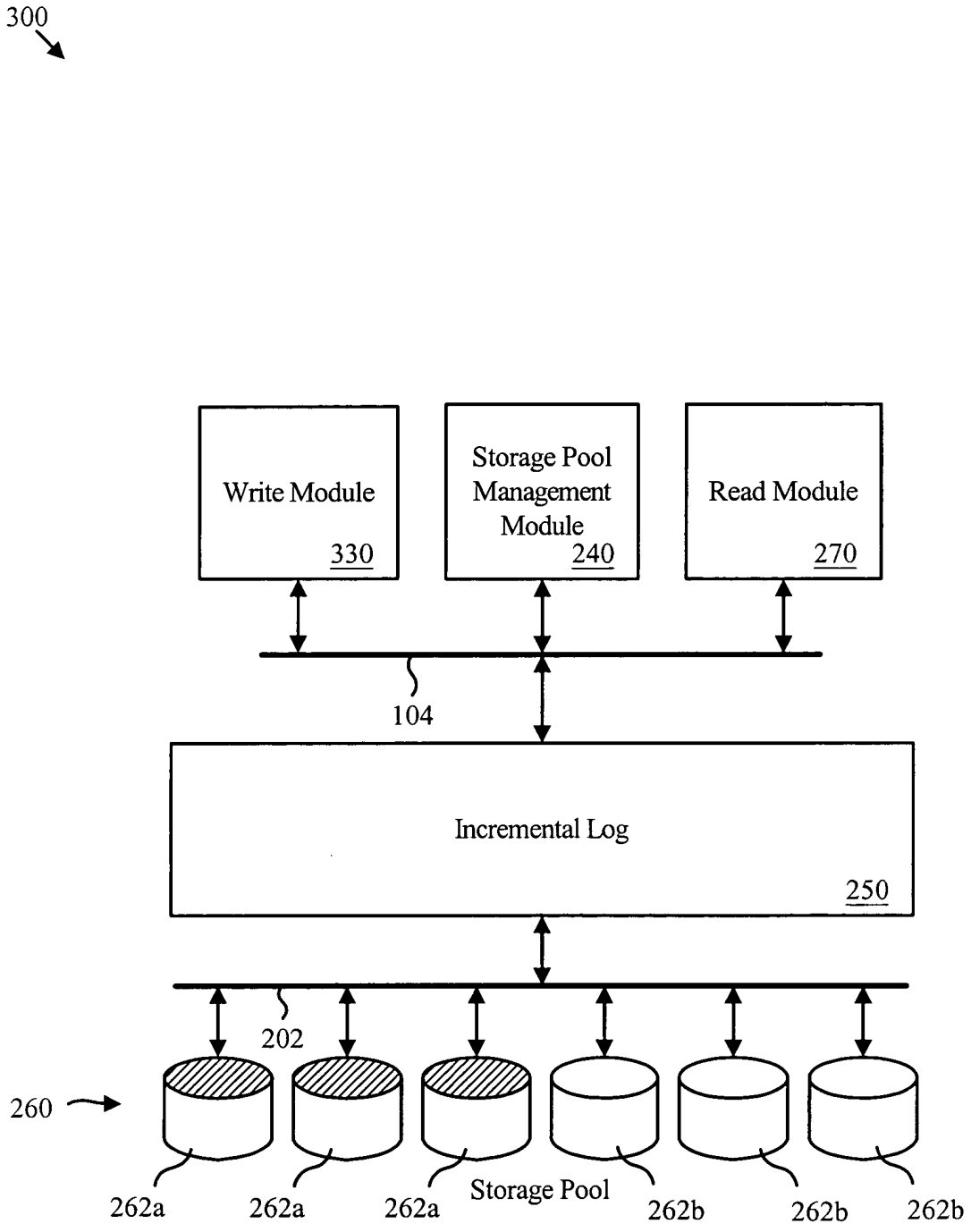
300
Write Module
330
Storage Pool
Management
Module
240
Read Module
270
104
Incremental Log
250
202
260
262a
262a
262a
Storage Pool
262b
262b
262b

Fig. 3

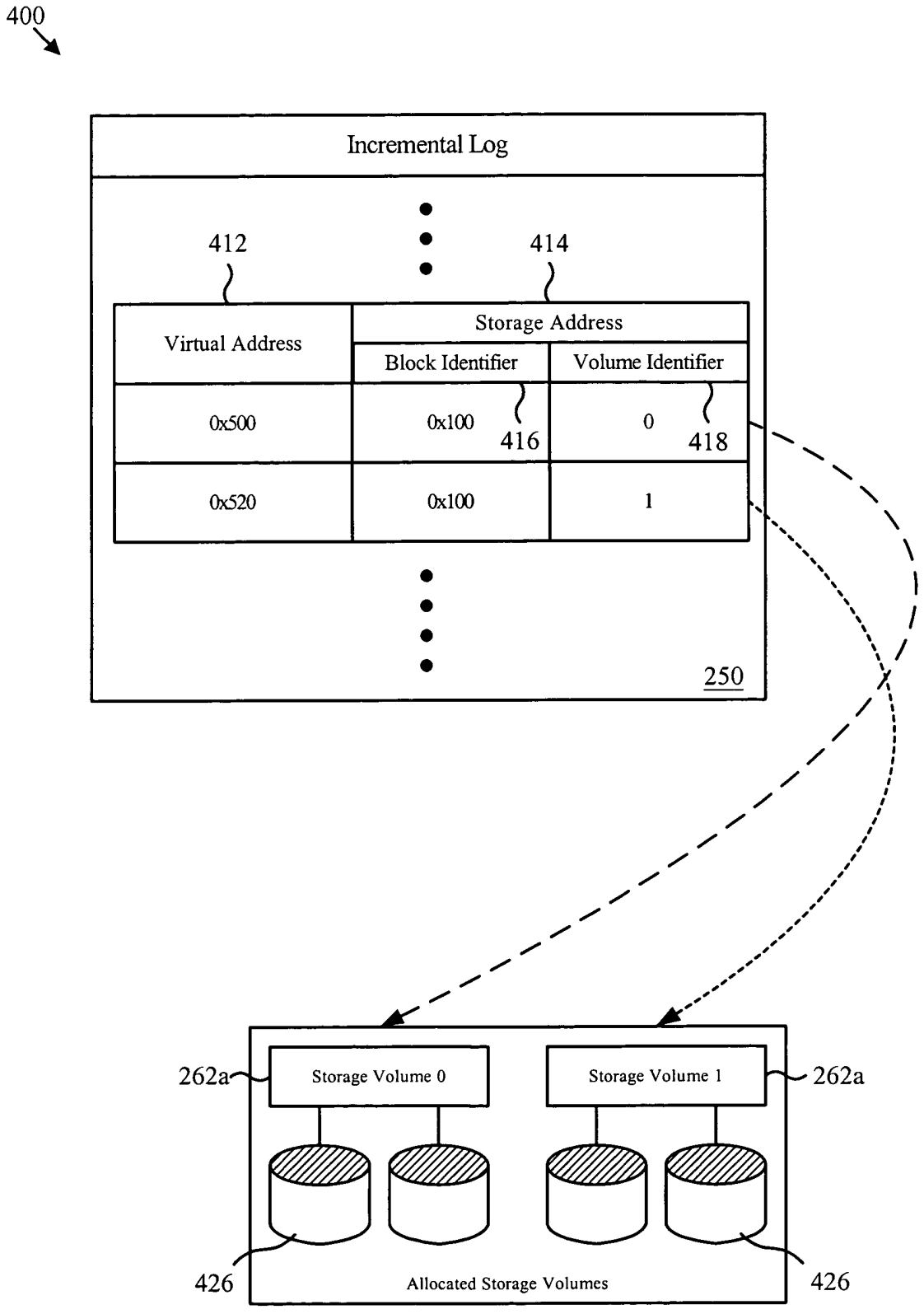
400
Incremental Log
412
414
Virtual Address
Storage Address
Block Identifier
Volume Identifier
0x500
0x100
416
0
418
0x520
0x100
1
250
262a
Storage Volume 0
Storage Volume 1
262a
426
Allocated Storage Volumes
426

Fig. 4

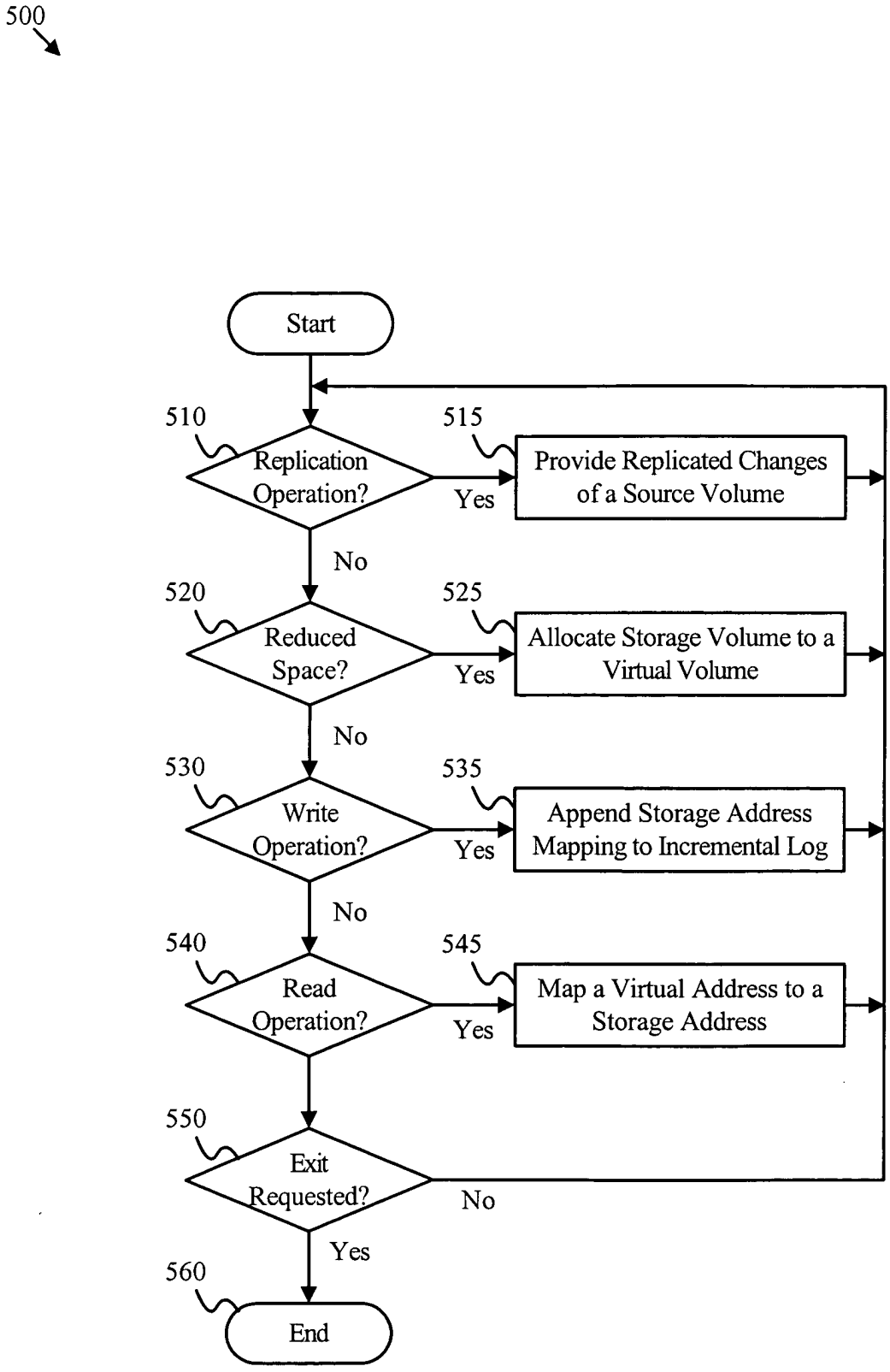
500
Start
510
Replication Operation?
Yes
515
Provide Replicated Changes of a Source Volume
No
520
Reduced Space?
Yes
525
Allocate Storage Volume to a Virtual Volume
No
530
Write Operation?
Yes
535
Append Storage Address Mapping to Incremental Log
No
540
Read Operation?
Yes
545
Map a Virtual Address to a Storage Address
550
Exit Requested?
No
Yes
560
End

Fig. 5

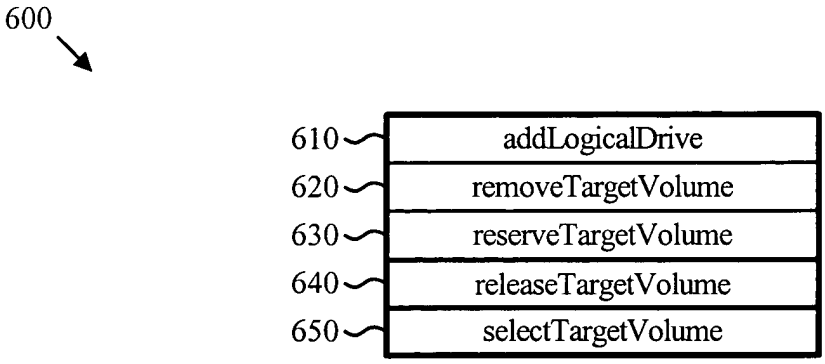
600
610
addLogicalDrive
620
removeTargetVolume
630
reserveTargetVolume
640
releaseTargetVolume
650
selectTargetVolume

Fig. 6

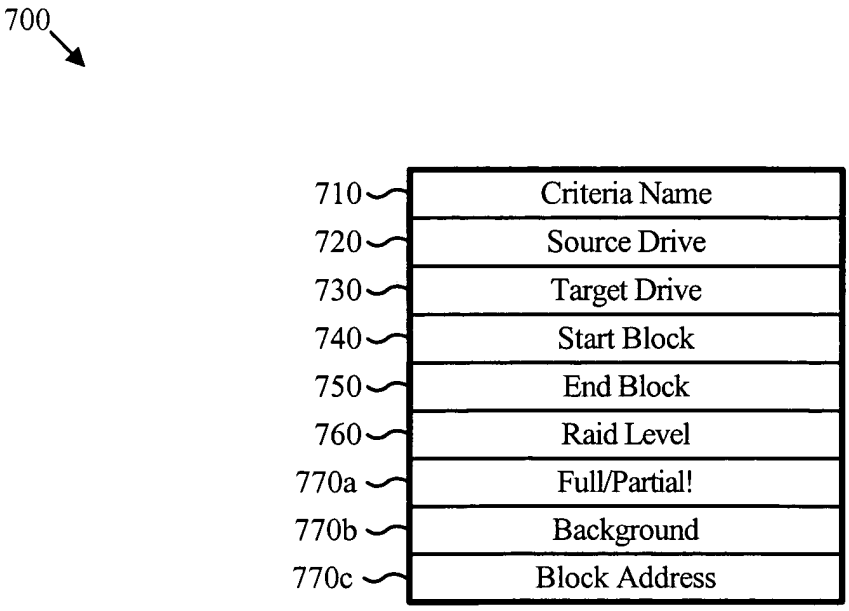
700
710
Criteria Name
720
Source Drive
730
Target Drive
740
Start Block
750
End Block
760
Raid Level
770a
Full/Partial!
770b
Background
770c
Block Address

Fig. 7

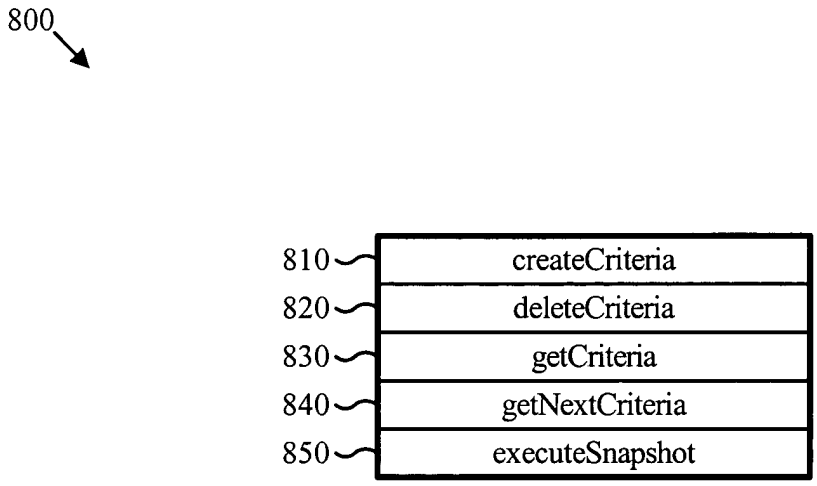
800
810
createCriteria
820
deleteCriteria
830
getCriteria
840
getNextCriteria
850
executeSnapshot

Fig. 8